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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,823	04/30/2001	Ted E. Dunning	085804-014501	5884
76058	7590	12/10/2009		
YAHOO! INC. C/O GREENBERG TRAURIG, LLP MET LIFE BUILDING 200 PARK AVENUE NEW YORK, NY 10166			EXAMINER	
			RETTA, YEHDEGA	
			ART UNIT	PAPER NUMBER
			3622	
			MAIL DATE	DELIVERY MODE
			12/10/2009	PAPER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/846,823

Filing Date: April 30, 2001

Appellant(s): DUNNING ET AL.

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James J. DeCarlo  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 19, 2009 appealing from the Office action  
mailed May 27, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

U. S. Application 10/401,940 is awaiting BPAI decision.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,438,579	HOSKEN	8-2002
6,526,411	WARD	2-2003

6,430,539

LAZARUS et al.

8-2002

## **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**DETAILED ACTION**

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-14, 17-27, 32, 33, 39, 42-45, 48-59, 62-72, 75-85, 91 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosken U.S Patent No. 6,438,579.

Regarding claim 1, Hosken teaches accepting, in a computer, item selections detected from a plurality of users; generating, in the computer, a log for each user, each log containing identifiers corresponding to detected user item selections (see '579' col. 3 lines 15-33) and (see 60/144,377, hereinafter '377' page 6 par. 1-5). *Hosken provisional '377' teaches the user profile table (user profile, user profile rating) contains identifying information about music items linked to a user, the information in this table can be provided using explicit rating information provided by the user or through implicit observation by the system based on user's actions (see also fig. 1); accepting, in the computer, a query including at least one query item identifier; scoring, in the computer, each of the user logs, the scoring for each user log being responsive to a degree of occurrence of the at least one query item identifier in the user log, a frequency of occurrence of*

the at least one query item identifier ***in all of the user logs and a query weight for the at least one query item identifier in the query***, so as to generate user log score for each user log based exclusively on detected user item selections and the at least one query item (see '579' col. 12 line 35 to col. 13 line 6). Hosken '377 also teaches accepting item selection (user choosing an item); generating user log (profile based on implicit and explicit rating data for music provided by users) containing identifiers (vectors) corresponding to detected user item (see pp 5 lines 6-20); accepting a query (selection) and scoring (correlating similarity between the user ratings and other users' rating and determining weigh for each item to give rating weight (see pp 11 line 4 to pp. 12 line 6); determining, in the computer at least one result item, responsive to a frequency of occurrence in at least a subset of the scored user logs, so as to discover at least one relationship based exclusively on detected user item selections and the at least one query item identifier in the user log, a frequency of occurrence of the at least one query item identifier relative to all of the user logs and a query weight for the at least one query item identifier in the query (see '579' col. 15 line 10 to col. 16 line 21, col. 16 lines 24-55); Hosken '377' also teaches being responsive to a degree of occurrence of the item identifier in the user logs (weight for each item determined by multiplying the correlation with the rating to give the correlated rating weight (pp 8 lines 14-25); determining at least one result item (recommendation) (see pp 10-13 and abstract and fig. 2b to fig. 5).

Hosken also teaches that the *explicit information provided* by users provides high-confidence information that can be incorporated into the group and individualized collaborative data. Hosken teaches that implicit and explicit profiling data is used to provide recommendation (see col. 4 lines 44-67). Hosken discloses that the user may explicitly enter music items and

ratings or the system may derive implicit ratings of music items based on system-based observations (detected) of user actions and the system making recommendation based on the input (see col. 14 lines 13-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement selected features of Hosken. Omitting Hosken's collection of explicit user profile, by interviewing or surveying users, would cost less to operate the system. Also it would have been obvious to one of ordinary skill in the art to provide recommendation from implicit user profile only to those who are not willing to participate in the interview or survey of Hosken. It is also well settled that the elimination of an element or its functions is an obvious expedient if the remaining elements perform the same functions as before - *In re Karlson*, 136 USPQ 184, 186; 311 F2d 581 (CCPA 1963).

Regarding claims 4-11, Hosken teaches video track or music track, generating track list containing an identifier for each determined result. Hosken teaches recommending music and video and other media content items based on similarity in profile between the user and other users (see '579' col. 12 line 38 to col. 13 line 30, *see '377' page 6, 12*).

Regarding claims 12 and 13, Hosken teaches accepting selection; input specifying an item purchase by user, provided via web page (see '579' col. 4 lines 11-55, col. 5 lines 20-62, *see '377' page 7 and fig. 3*).

Regarding claim 14, Hosken teaches defining a subset of the scored user logs, *the at least one result item being determined from the subset of scored user logs* (see '579' col. 15 line 10 to col. 16 line 21, *see '377' page 10 & 11*). Hosken teaches correlating the users in the cluster with the current user and determining items which are highly likely to be liked by the current user (*see '377, page 11 & 12*).

Regarding claim 17, Hosken teaches wherein accepting item selections comprises receiving input provided by a user via an application for playing tracks (see '579' col. 4 lines 11-15, col. 5 lines 20-62, *see '377' page 7, 12 and fig. 3*).

Regarding claims 18-21, 48-53 and 75-79, Hosken teaches wherein accepting a query comprises receiving a user log containing identifiers for a user's item selections; wherein accepting a query comprises receiving a first search term, generating, in the computer, a second search term containing an identifier for each determined result item; providing, in the computer, the second search term as input for a search engine; and adding, in the computer, the second search term to a searchable portion of a document associated with the first search term; periodically uploading the generated log (see '579' col. 8 lines 38-65, *see '377' page 8 &9*).

Regarding claims 22-27, 54-58 and 80-85 Hosken teaches outputting advertisement related to the determined result (see '579' col. 8 lines 38-53, col. 16 lines 24-53, *see '377' page 7 & 12*).

Regarding claims 32 and 33, Hosken teaches deleting item selected by user from the determining at least one result, ranking the result responsive to the degree of significance (see col. 16 lines 24-53, *see '377' page 12*).

Claims 39 and 59 are rejected as stated above in claim 1.

Claims 42-45 and 62-69 are rejected as stated above in claims 4-11.

Claims 70 and 71 are rejected as stated above in claims 12 and 13.

Claim 72 is rejected as stated above in claim 14.

Claims 91 and 92 are rejected as stated above in claims 32 and 33.

Claims 2, 3, 28-31, 34-38, 40, 41, 60, 61, 86-90, 93-97 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hosken U.S. Patent No. 6,438,579 further in view of Lazarus U.S. Patent No. 6,430,539.

Regarding claims 2, 3, 40, 41, 60, 61 and 86 Hosken does not explicitly teach significance of occurrence being determined by a log of likelihood ratio analysis or a substantial equivalent of a log of likelihood ratio analysis, it is taught by Lazarus (see col. 22 line 19 to col. 25 line 53). Lazarus teaches use of a log of likelihood ratio or an equivalent analysis to determine significance of occurrence (see abstract, col. 4 lines 24-67 and col. 39 lines 13-53). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use Lazarus's predictive model in Hosken's recommendation system since a log of likelihood ratio or equivalent ratio analysis overcomes the problem of small count situations and have much better small count behavior while at the same time retaining the same behavior in the non-small count regions as taught by Lazarus (see col. 24 line 44 to col. 25 line 38).

Regarding claims 28-31, 34-38, 87-90, 93-97, Hosken teaches determining a total number of users, each group containing information detected from implicit use behavior, (see fig. 2 (70, 68, 64)); determining a subset of user, determining the items selected or not selected by the subsets and use of correlation algorithm to determine the correlation between the cluster and the user (see col. 15 line 10 to col. 16 line 21). However Hosken failed to explicitly teach the correlation algorithm as a log likelihood ratio, it is disclosed in Lazarus (see abstract, col. 4 lines 24-67 and col. 39 lines 13-53). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use Lazarus's predictive model in Hosken's recommendation system since a log of likelihood ratio or equivalent ratio analysis overcomes the problem of small

count situations and have much better small count behavior while at the same time retaining the same behavior in the non-small count regions as taught by Lazarus (see col. 24 line 44 to col. 25 line 38). Hosken discloses that the user may explicitly enter music items and ratings or the system may derive implicit ratings of music items based on system-based observations of user actions and the system making recommendation based on the input (see col. 14 lines 13-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement selected features of Hosken. Omitting Hosken's collection of explicit user profile, by interviewing or surveying users, would cost less to operate the system. Also it would have been obvious to one of ordinary skill in the art to provide recommendation from implicit user profile only to those who are not willing to participate in the interview or survey of Hosken.

Claims 15, 16, 46, 47, 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosken U.S. Patent No. 6,438,579 further in view of Ward U.S. Patent No. 6,526,411.

Regarding claims 15, 16, 46, 47, 73 and 74, Hosken '377 failed to explicitly teach monitoring user behavior by detecting user input ... Ward teaches selecting tracks based on users profiles including the user dislikes for a particular item either by skipping or through rating (**see col. 8 lines 20-40 see also provisional 60/165727, page 2-5**). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to modify Hosken's recommendation system by making the selection of tracks based on how often the track was played or based on when the last time the track was played, as in Ward's, in order to improve the recommendation system by refining user preference.

**(10) Response to Argument**

I. Response to arguments with respect to Effective Filing Date.

Regarding Hosken, Appellant argues that there is no 112 first paragraph support in the Hosken provisional for how user actions are actually used to modify a user profile, and/or make a recommendation using user actions. Appellant further agrees that the Hosken provisional describes that a user profile contains ratings information and that the ratings information is needed to make a recommendation. Appellant also asserts that in order to modify a user profile or make a recommendation in accordance with the collaborative recommendation system described in the Hosken provisional, a user action would need to be translated into ratings information before it can be used to make a recommendation. Appellant also indicates that the Hosken provisional fails to provide any disclosure that would enable one of ordinary skill to use implicit observation of user actions or observed behavior to select a user profile and/or select an item in a user profile, which the Hosken provisional describes must be done in order to make a collaborative recommendation. First it is unclear why in Hosken the user actions would be used to modify user profile to make a recommendation using the user actions, since the user actions are used to create user profile. Second Examiner completely disagrees with Appellant that the user action needs to be translated into ratings information before it can be used to make a recommendation. However, Hosken provisional '377 teaches (page 5) in the first case the user chooses an item he knows or likes from a master of list of items; the system processes the selection(s) by searching through a list of items that are linked by association (i.e. by contextual attributes such as genre or artist) to the item selected by the user, along with strength or weight of this relationship; the item with strongest relationship between the user's selected item or

stored in a form that can be displayed to the user as recommended items. Hosken further teaches in the second case, the user chooses an item he knows he likes from a master list of items; the system processes the selection by searching through a list of users, *selecting those users that have rated the item select by the first user*; the profile of the users selected by this step are then accessed by represented as a vector....; the correlation between the first user and each user within the subset; the correlation is then used to determine either the predicted rating for the item selected by the first user or to determine the user with closest tastes to the first user ...displayed to the user as recommended items; the system finally joins the two sets of recommendations, sorts them and display the result to the user. Therefore, there is no need for the translation of user action into ratings.

In regard to Appellant's argument that Hosken provisional fails to provide any disclosure that would enable one of ordinary skill to use implicit observation of user actions or observed behavior to select a user profile and/or select an item in a user profile, which the Hosken provisional describes must be done in order to make a collaborative recommendation. It is unclear what this has to do with applicant's claimed invention. As indicated by Appellant, in order for Hosken to be considered prior art to the claims of the present application, there must be a showing to establish that the '377 Hosken provisional application provides full support, in compliance with 35 U.S.C. § 112, for the subject matter of Hosken relied-upon. See MPEP § 2136.03 (III). However, as indicated before in the previous office actions, Appellant fails to show Appellant's claimed limitation which is not disclosed in Hosken's provisional. The subject matter argued by Appellant i.e., user action need to be translated into ratings or to provide support for how user actions are actually used to modify a user profile and/or make a

recommendation using user actions or to use implicit observation of user actions or observed behavior to select a user profile and/or select an item in a user profile is not a subject matter of the claimed invention and is not the subject matter of Hosken relied upon.

Regarding Ward, Appellant asserts that in order for the Ward to be considered prior art to the claims of the present application, there must be a showing to establish that at least one of the provisional application provides full support, in compliance with 35 112 for the subject matter of Ward relied-upon. As shown in the rejection above, Examiner provided support in Ward's provisional for the claimed subject matter Ward relied-upon.

## II. Response to arguments with respect to ground of rejection (1)

Regarding Group (1) claims 1, 4-8, 12-14, 17-21, 24-26, 32, 33, 39, 42-45, 48, 49, 51-53, 56-59, 62-66, 70-72, 75-79, 82-84, 91 and 92, Appellant argues that Hosken does not disclose or suggest a log generated for a user of a plurality of users, the log containing identifiers corresponding to the detected user item selections accepted from the user, as required by the claims. Appellant further asserts that Hosken describes that the information in this table (table I) is derived from explicit rating information provided by the user and implicit observations performed by the system against user browsing actions. Appellant argues that Hosken does not disclose **how it derives the information contained in the user profile from implicit observations** performed by the system against user browsing actions. Appellant also argues Hosken does not disclose that the user profile is a log of item selections detected from a user nor does it disclose that it is a log containing identifiers corresponding to the detected user item selection. Examiner would like to point out that Hosken teaches that the system stores implicit and explicit behaviors (see fig.2). The figure shows that the user browse action considered as the

user input action (explicit behaviors) and also implicit behavior, and both behaviors stored as user profile. Hosken also teaches (see Figure 3. see also col. 9 line 65 to col. 10 line 59, Table II, and Table III) the user profile 64 may be edited directly 66, including specific statements of user identity and specific interests in different media content and content items, much of the user profile 64 obtained from a user behaviors 68 analysis; user actions obtained by monitoring direct user input action 66 and user browse actions 70 in navigating recommendation sets 72 are preferably examined to identify general and particular interests of the user and gauge the relative strengths of the interests. Hosken also teaches the system collects **explicit** and **implied behaviors** from the user; *explicit behaviors are defined as direct actions taken by a user that directly identify a level of interest relationship between characterizing attributes media content items*; as such, an empirical selection of explicit behaviors can be identified as reflecting the most direct indications of user interest; implicit behaviors identified from actions a user makes in navigating a recommendation set; *implicit behaviors recognized from the monitored and analyzed browsing actions* (see col. 10). Examiner would like to point out that the claim recites accepting *user selections detected* from a plurality of users; generating a log for each user, each log containing identifiers corresponding to the detected user item selections; scoring each log responsive to a frequency of occurrence. Hosken, in addition, to the explicit user behavior (directly detected user actions) also teaches implicit profiling (indirectly detected user selections) used to provide the recommendation. The profile of Hosken includes names or titles or identifiers of the user selected items such as the name or title of tracks or books or other items). Therefore, the Hosken profile is a log containing identifiers of user selected items. Hosken '377 also teaches accepting item selection (user choosing an item); generating user log (profile based

on implicit and explicit rating data for music provided by users) containing identifiers corresponding to detected user item (see pp 5 lines 6-20).

Appellant also argues that Hosken fails to disclose or suggest scoring a user log responsive to a frequency of occurrence of a query item identifier in the user log and a frequency of occurrence of a query item identifier in all of the user logs, as required by the claims.

Examiner would like to point out that the as claimed the scoring of the log is responsive to a frequency of occurrence of an item in a user log. Hosken teaches (see col. 7 lines 1-30) the system processes operate on the selection by autonomously searching through the available user profiles with purpose of identifying those profiles *reflecting similar ratings of media content items rated by the user*; the identified profiles are then correlated against the profile of the present user on the *based of the commonly rated media content items*; preferably these correlations may be represented as vector relationships which are stored in the work tables 44; the degree of profile correlation and the relative strength of the relationships between the media content items known and apparently unknown to the user aid in defining the likely level of interest represented in the vectors. In this case it shows that each profile selected have one item in common (frequency of occurrence of the item in each profile is at least one). Therefore, each profile is selected based on the occurrence of the item in the user's profile. Hosken also teaches a query weight for at least one query item. Hosken teaches an industrial database 52 that contains lists of available media content items and an expert weighting filter 54 provides a logical map of the various items listed in the industrial database 52 relating and providing weighting factors for those items that share characterizing attributes; The filtering performed through the final rating filter 56 thus effectively implements a collaborative function reflecting the values and interests

of the user community resulting in a desirable basis in the selection of the recommendation set provided by the system (see col. 9 lines 1-35). Therefore, Hosen teaches scoring (selecting profiles based on a frequency of occurrence of an item in all user logs (profile) and responsive to query weight of at least one query item.

Appellant argues that Hosken failed to disclose or suggest generating a user log score for each user log based *exclusively detected user item selection* on the at least one query item. If applicant intends to claim that only the directly detected user action is used to generate the user log, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement selected features of Hosken by only using Hosken's implicit user action or only explicit user action, to provide the recommendation. One would be motivated to collect only one type of user behavior in order to save money.

Regarding Group (2) claims 9, 50 and 67, Appellant asserts that a format schedule, e.g. play a top-40 hit at the top of each hour can be used in generating a listing of at least one result item, i.e. at track. Hosken also teaches in response to a user request action, the referral system produces a recommendation set; the form of the request may be varied; preferably, a user request action identifies a media content item to the system; and other request type are listed in Table IV (request type bases on Media Content type, Top Ten Pop Tracks, Re-Releases (recent re-releases collections)), which are of specific time period.

Regarding Group (3), claims 22, 23, 54, 55, 80 and 81, Appellant argues that Hosken fails to disclose or suggest outputting *an advertisement relating to the determined at least one result item*, and/or outputting an advertisement relating to the determined at least one result item displays *at least one selected form the group consisting of*: a web page, banner, a portion of a

web page, and an animation, as required by the claims. Hosken teaches the content may be presented in presentation format, including audio, visual works, streaming and static pictorial images and clips, documents and reference materials alone or associated with other content. Hosken also teaches the Web browser operated by the user includes or is augmented with plug-ins and applications supporting the presentation of streaming audio and video data as may be returned from the server (see col. 4 lines 11-43). Hosken also teaches the user makes a purchase (or consummation) of a media item recommended by the system based solely on the systems recommendation (see col. 13 lines 34-50). Therefore, providing the product to be purchased is and advertisement for the item. Hosken also teaches (see col. 16 lines 44-43) the present invention can be used to recommend other items, such as videos, digital music, television shows books and other entertainment media content database would includes the output media content items are presented on user accessible display.

Regarding Group (4) claims 27 and 85, Hosken teaches the output of media content items are presented on a user accessible display and other communications connected informational screens.

Regarding Group (5) claims 10, 11, 68 and 69, Hosken teaches (see col. 7 lines 1-30) the system processes operate on the selection by autonomously searching through the available user profiles with purpose of identifying those profiles *reflecting similar ratings of media content items rated by the user*; the identified profiles are then correlated against the profile of the present user on the *based of the commonly rated media content items*; preferably these correlations may be represented as vector relationships which are stored in the work tables 44; the degree of profile correlation and the relative strength of the relationships between the media

content items known and apparently unknown to the user aid in defining the likely level of interest represented in the vectors. Therefore, each profile is selected based on the occurrence of the item in the user's profile. Hosken also teaches (see col. 16 lines 44-43) that the present invention can be used to recommend other items, such as videos, digital music, television shows books and other entertainment media content.

III. Response to arguments with respect to ground of rejection (2)

Regarding Group (1) (claims 34, 36, 93 and 95), Group(2) (claims 28, 86 and 87), Group (3) (claims 2, 3, 40, 41, 60 and 61), Examiner would like to point out that claim 34 for example recites determining a total number of item groups (N groups); determining *a number of item groups N<sub>1</sub>* in a subset of *item groups* (could be of any groups, since there is no relationship with the total number N). There is no indication in the claim that the determined number is more than zero or less than the total subset, therefore, the determined number, that includes the first item or second item, could be zero or the total number of the subset. If that is the case, the determined number of groups (N<sub>2</sub>) not in the subset of (N<sub>1</sub>) could also be zero or could be the total number groups in the subset. The determined number of group K<sub>11</sub> (that contains the first item) could also be zero or the groups N<sub>1</sub> or N<sub>2</sub> or all the groups in the subset (N<sub>1</sub> plus N<sub>2</sub>). The groups that include first item also could include the second item. The same is also truth in regards to the determined number of K<sub>12</sub> (group not in the subset that contain the first item) would be the groups that contain the second item or do not contain the second item) Therefore, determining a number of groups K<sub>21</sub> (N<sub>1</sub>-K<sub>11</sub>) in the subset *that do not contain the first item* (K<sub>12</sub>) and determining number of groups K<sub>22</sub> (N<sub>2</sub>-K<sub>12</sub>) *not in the subset that do not include the first item* (in

any group beside  $K_{12}$ , which could be group N,  $N_1$ ,  $N_2$ ,  $K_{11}$  or combination of those groups or none) could be any number of groups include zero. The claim also recites determining *a log likelihood ratio*, and based on the ratio generating a *representation of the relationship between the first and second item*. First of all, there is no relationship between the determined groups (if there is any) and the log likelihood ratio and also between the first and second item. Examiner provided a reference based on a possibility that it would be determined that a group would include the first or the second or both items and the likelihood ratio is used to determine whether one of the items is more likely to occur. Hosken teaches determining a subset of users and determining item (first or second item) selected by the users (included in the profile of the subset) and items (first or second item) not selected by the users (item not included in the subset). Hosken does not disclose a log likelihood ratio for determining a significance of occurrence (of any item or any subject). Lazarus is provided for the teaching of a log likelihood ratio for determining a significance of occurrence (of any occurrence of a subject). Appellant also asserts that in contrast to determining a significance of a co-occurrence, the claimed significance is a significance of an occurrence. Examiner would like to point out that according to appellant's specification (see [0015]), the significance of a particular co-occurrence (i.e. an observed purchased of two products by the same individual) is given undue weight, when in actuality the co-occurrence may merely be a coincidence ... conventional data analysis techniques often fail to yield meaningful results, because of both the over stated significance of coincidental co-occurrence, and the overpowering influence of best sellers. The specification also teaches (see [0214]) the present invention employs a binomial log likelihood ratio analysis for finding significantly over-represented tracks, albums or artists in a set of retrieved play logs

... it follows, then, that the log likelihood ratio is a useful indicator of the relationship *between the occurrences of the two tracks, if any*. The specification [0215] teaches the log likelihood ratio is the ratio of the maximum likelihood of the observed data of all models where the null hypothesis holds the maximum likelihood of the observed data. The specification also teaches (see [0250]) the over-represented artists, albums, and/or tracks are extracted based on measured significance using the log likelihood ratio. Lazarus also teaches the same formula used to calculate ( $r_{ij}$ ) (see col. 25 and 26). Therefore, same as Appellant's claimed invention, Lazarus also teaches determining the relationship between the occurrence of two items (occurrence of individual items or the co-occurrence of two items).

IV. Response to arguments with respect to ground of rejection (3)

Regarding claims 15, 16, 46, 47, 73 and 74, contrary to Appellant's argument Wards teaches motoring monitoring user behavior *with respect to the selected items*, and adjusting, in the computer, the user log responsive to the monitored user behavior, wherein the monitoring user behavior comprising at least one selected from the group consisting of: detecting user input requesting that a selected item be repeated; detecting user input requesting that a selected item be skipped; detecting user input specifying a volume change; and detecting user input specifying that a selected item be muted, *and adjusting the user log responsive to the monitored user behavior*. Wards teaches an initial input query list of items potentially results in the return of many content items available from one or more content providers wherein the retrieved content called "dynamic playlist" has a high correlation with the user's preference; wherein the dynamic playlist is a list of items that can be played; user profiles applied to the sorting process (see col. 2

lines 4-26). On col. 8, Wards teaches when the user plays the playlist, the playlist is submitted to the sort server system, ... Optionally when the user expresses dislikes for a particular content item, either by skipping the item or through a rating system the system records such instances in the meta-data associated with user, i.e., the profile and upon resubmission of the playlist to the sort server a new playlist now adapted to the expressed taste of the *playlist listener is generated and the rejected content items are not selected based on the updated user profile.*

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

YR  
/Yehdega Retta/  
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Eric Stamber/E. W. S./  
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